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REMARKS

Upon receipt of this response, the Examiner is respectfully requested to contact the undersigned representative of the Applicant to arrange a telephone interview concerning the inventive merits of this application.

The drawings are objected to for the reasons noted in the official action. All of the raised drawing objections are believed to be overcome by the above new claims. If any further amendment to the drawings is believed necessary, the Examiner is invited to contact the undersigned representative of the Applicant to discuss the same.

Next, claims 7-13 are rejected, under 35 U.S.C. § 103, as being unpatentable in view of Loeffler '493 (United States Patent No. 4,807,493), Menjak et al. '076 (United States Patent No. 6,997,076) and Sandig '369 (United States Patent No. 6,334,369). The Applicant acknowledges and respectfully traverses the raised obviousness rejection in view of the above amendments and the following remarks.

Although the present invention is somewhat related to the transmission as disclosed Loeffler '493, the presently claimed invention is distinctly different from the arrangement of Loeffler '493. More specifically, Loeffler '493 relates to a transmission 10 with a main shaft 42 which supports a rotationally fixed range drive gear 126 and a rotationally fixed clutch gear 112 (column 6, lines 51-53), which has radially *outer* teeth 114. The fixed range drive gear 126 and the rotationally fixed clutch gear 112 are located adjacent one another. Two counter shafts 106, 108 have range gears 132, 134 and low range gears 164, 166 rotationally fixed thereto. The range drive gear 126, on the main shaft 42, continuously engages and drives the range gears 132, 134 of the counter shafts 106, 108 such that the low range gears 164, 166, which continuously engage a low range driven output gear 168, *continuously drive* the low range driven output gear 168. The low range driven output gear 168 has radially *outer* splines 117 and continuously rotates about and is supported by the output shaft 120 on needle bearings 170.

The output shaft 120 also supports a clutch collar 118, which has radially *interior* splines 116. These radially *interior* splines 116 are engagable with the *outer* splines of the low range driven output gear 168 or the clutch gear 112.

Column 6, lines 51-59 and Fig. 1 specifically disclose that all axial movement of the clutch gear 112 and the range drive gear 126, along the main shaft 42, is prevented by being sandwiched between each other and respectively an end washer 122 and bolt 124 and a thrust plate 128 and snap ring 130 which are axially fixed to the main shaft 42. In short, the two gears

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112, 126, both rotationally driven by the main shaft 42, are axially fixed along the main shaft 42 by components 122, 124, 128, 130 that are axially fixed directly to the main shaft 42.

In addition, the main shaft 42 continuously drives the counter shafts 106, 108 by way of the continual engagement of the gear 126 with the range drive gears 132, 134 while the low range gears 164, 166, of the counter shafts 108, 106, continuously drive the low range output gear 168, which is radially supported on the output shaft 120 by bearing pins 170.

In relation to Loeffler '493, the pending claims comprise an input drive shaft 4, which supports only two elements, namely, a single gearshift sleeve 42 and a hollow loose gear wheel 6. In addition, the loose gear wheel 6 is loosely supported and centered on the input drive shaft 4 by external gear wheels 8, 10 that are respectively fixed to the counter shafts 12, 14. The loose gear wheel 6 has radially inner teeth 44 and *when the gearshift sleeve 42 slides axially between the input shaft 4 and the loose gear wheel 6*, the input shaft 4 and the loose gear wheel 6 will become engaged thus providing drive through gear wheels 8, 10 to the counter shafts 12, 14. This arrangement is completely contrary to the specifically disclosed arrangement of the shaft 42 and the rotationally fixed gear wheel 126 of Loeffler '493 used to continuously provide drive to the two counter shafts 106, 108.

It should also be recognized that the gear wheel 168 of Loeffler '493 supported by the output shaft 120 is rotationally supported by needle bearings 170 which, in turn, are supported by the output shaft 120. That is to say, the gear wheel 168 is not supported by the two counter shafts 106, 108, but it supported by the output shaft 120.

In addition, the Applicant asserts that Loeffler '493 does not relate to a drive shaft 22, which supports a rotationally fixed output gear wheel 20 that engages the second gear wheels 16, 18 of the first and second counter shafts 12, 14. Furthermore Loeffler '493 does not relate to a gearshift sleeve 42 that has radially outer teeth that engage radially inner teeth 44 of the loose gear wheel 6 or the radially inner teeth 46 of the drive output shaft 22.

The Applicant acknowledges that the additional references of Menjak et al. '076 and Sandig '369 may arguably relate to the feature(s) indicated by the Examiner in the official action. Nevertheless, the Applicant respectfully submits that the combination of the base reference of Loeffler '493 with this additional art of Menjak et al. '076 and Sandig '369 still fails to in any way teach, suggest or disclose the above distinguishing features of the presently claimed invention. In summary, the Applicant asserts that all of the cited references of Loeffler '493, Menjak et al. '076 and Sandig '369, either alone or in any permissible combination, fail to motivate, teach or suggest the above distinguishing features of the presently pending claims. As such, the raised rejection in view of the applied art should be withdrawn at this time.

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In order to further distinguish the present invention from the applied art, the pending claims are amended emphasize the above noted distinctions. In particular, independent claim 14 now recites the features of "A range-change transmission comprising...a loose gear wheel (6), having radially inner teeth (44) and radially outer teeth, being rotationally supported by the input shaft (4)...an output gear wheel (20) being fixedly secured to the drive output shaft (22), and the output gear wheel (20) engages the second gear wheels (16, 18) of the first counter shaft (12) and the second counter shaft (14); in the first position of the gearshift sleeve (42), the gearshift sleeve (42) being at least partially located between the input shaft (4) and the loose gear wheel (6) such that the radially outer teeth (48) of the gearshift sleeve (42) engage with the radially inner teeth (44) of the loose gear wheel (6) and the input shaft (4) drives the output shaft (22) via the first and the second counter shafts (12, 14); in the second position of the gearshift sleeve (42), the radially outer teeth (48) of the gearshift sleeve (42) engage with the radially inner teeth (46) of the drive output shaft (22) so that the input shaft (4) directly drives the drive output shaft (22) via the gearshift sleeve (42); and first and second pressure combs (50, 52, 54, 56), carried by opposite sides of the output gear wheel (20), maintain the output gear wheel (20) in axially alignment with the second gear wheels (16, 18) of the first and the second counter shafts (12, 14)."

Independent claims 20 and 22 further recite a loose gear wheel 6 "being spaced from and surrounding the input shaft (4)...In the first position of the gearshift sleeve (42), the gearshift sleeve (42) being at least partially located between the input shaft (4) and the loose gear wheel (6)...a first pair of pressure combs (54, 56) are carried by opposed sides of the loose gear wheel (6) for maintaining the loose gear wheel (6) in axially alignment with the first gear wheels (8, 10) of the first and the second counter shafts (12, 14); and a second pair of pressure combs (50, 52) are carried by opposed sides of the output gear wheel (20) for maintaining the output gear wheel (20) in axial alignment with the second gear wheels (16, 18) of the first and the second counter shafts (12, 14)." Independent claim 22 further recite a loose gear wheel 6 "being rotatably supported by the input shaft (4) and axially movable therealong...in the second position of the gearshift sleeve (42), the gearshift sleeve (42) being at least partially received within a the first end of the drive output shaft (22)." Such features are believed to clearly and patentably distinguish the presently claimed invention from all of the art of record, including the applied art.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

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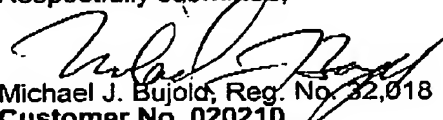
In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejection should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection or applicability of the Loeffler '493, Menjak et al. '076 and/or Sandig '369 references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



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